Amendments to the Claims

The listing of claims will replace all prior versions, and listings of claims in the application.

1. (*currently amended*) A method of processing a band-limited, over-sampled signal having a sequence of peaks, comprising:

reducing the amplitude of those portions of the band-limited over-sampled signal having peaks above a threshold value by:

clipping the band-limited over-sampled signal relative to said threshold value,

subtracting the clipped signal from the band-limited over-sampled signal;

filtering the ~~clipped band-limited over-sampled~~ subtracted signal,

subtracting the filtered ~~clipped~~ signal from the band-limited, over-sampled signal to produce an output signal; and

controlling a frequency position of a noise associated with the reduction of such peaks.

2. (*previously presented*) The method of claim 1 wherein the step of controlling the frequency position of the noise is combined at least in part with the step of filtering the clipped band-limited over-sampled signal.

3. (*cancelled*)

4. (*previously presented*) The method of claim 2 wherein the step of filtering the clipped band-limited over-sampled signal comprises creating a pulse having a pre-determined shape dependent upon the band-limited over-sampled signal.

5. (*cancelled*)

6. (*previously presented*) The method of claim 1 wherein the step of subtracting comprises delaying the band-limited, over-sampled signal by an amount corresponding to the time taken to implement the clipping and filtering steps.

7. (*cancelled*)

8. (*previously presented*) The method of claim 1 wherein the step of controlling the frequency position of the noise comprises moving the noise outside the frequency band used by the band-limited over-sampled signal.

9. (*previously presented*) The method of claim 1 wherein the step of controlling the frequency position of the noise comprises moving the noise outside the frequency band used by a signal transmitted in a direction opposite to a transmission direction of said band-limited over-sampled signal.

10. (*previously presented*) The method of claim 9 wherein the signal contributes an echo to the signal transmitted in said opposite direction.

11. (*previously presented*) A method of processing a band-limited over-sampled signal comprising:

clipping the band-limited over-sampled signal at a given threshold;

subtracting the clipped signal from the band-limited over-sampled signal;

filtering the subtracted signal to thereby control a frequency position of a clipping noise of said clipped signal and produce a filtered clipped signal;

delaying the band-limited over-sampled signal; and

subtracting the filtered clipped signal from the delayed band-limited over-sampled signal, thereby reducing the amplitude of those portions of the band-limited over-sampled signal having peaks above the given threshold.

12. (*previously presented*) A circuit for processing a band-limited over-sampled signal having a sequence of peaks, comprising:

circuitry for reducing the amplitude of those portions of the band-limited over-sampled signal having peaks above a threshold value by clipping the band-limited over-sampled signal relative to said threshold value, subtracting the clipped signal from the band-limited over-sampled signal, filtering the subtracted ~~clipped band-limited over-sampled~~ signal, and subtracting the filtered ~~clipped~~ signal from the band-limited, over-sampled signal to produce an output signal; and

circuitry for controlling a frequency position of the noise associated with the reduction of such peaks.

13. (*previously presented*) The circuit of claim 12 wherein the circuitry for reducing comprises:

a limiter for clipping the band-limited over-sampled signal relative to said threshold;

a filter for filtering the clipped band-limited over-sampled signal; and

an arithmetic unit for combining the filtered clipped band-limited over-sampled signal with the signal.

14. (*original*) The circuit of claim 13 wherein the arithmetic unit is a subtractor.

15. (*previously presented*) The circuit of claim 13 further including a delay circuit for providing a delayed version of the band-limited over-sampled signal to the arithmetic unit.

16. (*original*) The circuit of claim 12 wherein the circuitry for controlling the frequency position of the noise comprises a filter.

17. (*previously presented*) The circuit of claim 12 wherein the circuitry for controlling the frequency position of the noise controls the noise to be positioned outside the frequency band used by the band-limited over-sampled signal.

18. (*previously presented*) The circuit of claim 12 wherein the circuitry for controlling the frequency position of the noise controls the noise to be positioned outside the frequency band used by a signal transmitted in a direction opposite to a transmission direction of said band-limited over-sampled signal.

19. (*previously presented*) The circuit of claim 18 wherein the signal contributes an echo to the signal transmitted in said opposite direction.

20. (*previously presented*) A circuit for processing a multi-carrier signal comprising:

a limiter for clipping the multi-carrier signal to a given threshold;

a first subtractor for subtracting the clipped signal from the multi-carrier signal, thereby generating clipped samples;

a filter for filtering the clipped samples to thereby control a frequency position of a clipping noise of said clipped samples;

a delay circuit for generating a delayed version of the multi-carrier signal; and

a second subtractor for subtracting the filtered clipped samples from the delayed multi-carrier signal, wherein the amplitude of those portions of the multi-carrier signal having peaks above the given threshold is reduced.